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(54) Method and apparatus for playing a broadcast TV game

(57) A video game such as "Space Invaders" or "Asteroids" is played on a broadcast television programme, a player with a receiver 12 remotely controlling the play by telephoned commands which are automatically converted to control signals. The commands may be voice commands converted to control signals by speech recognition arrangement 14 and two or more players can compete in the same game on separate telephone lines. The TV studio may have the usual cameras 16 and monitors 17, the programme being broadcast via transmitter 11. Alternatively, a standard TV game control console may be used, the joystick and push button being connected to a tone generator and the tones being transmitted telephonically to the studio for conversion by a computer into control signals for the TV game. Radio telephone, fixed headline or communications satellites may also be used to carry the commands or tones.

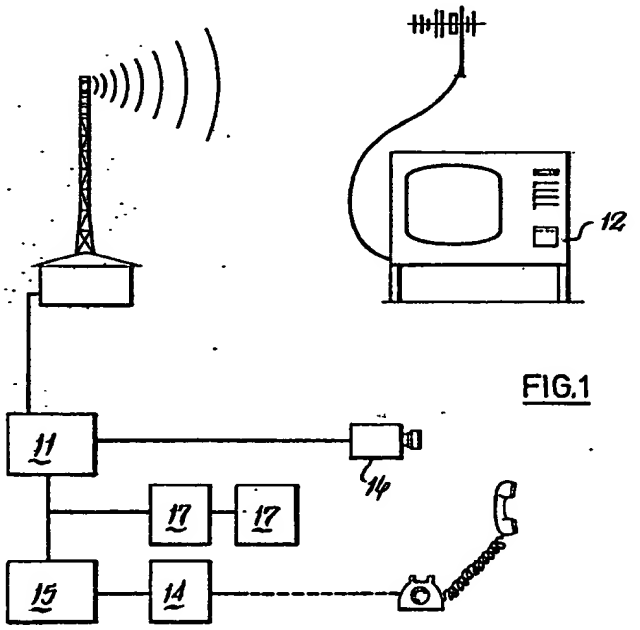

FIG.1

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The drawing originally filed was informal and the print here reproduced is taken from a later filed formal copy.

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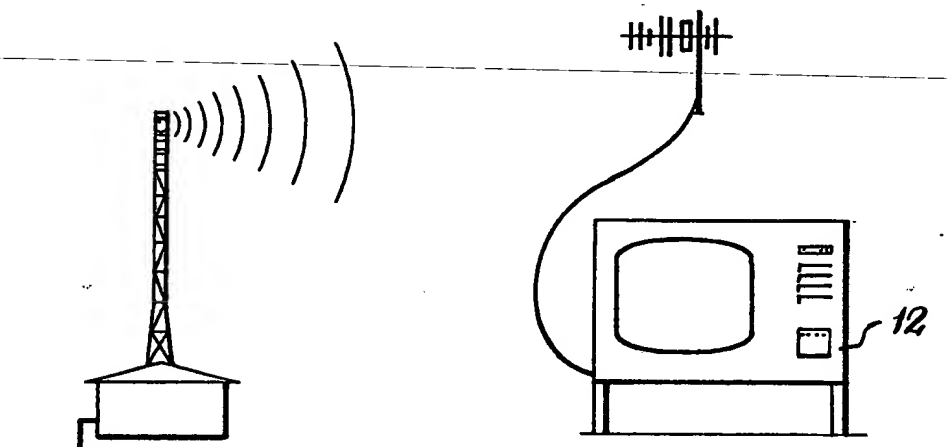
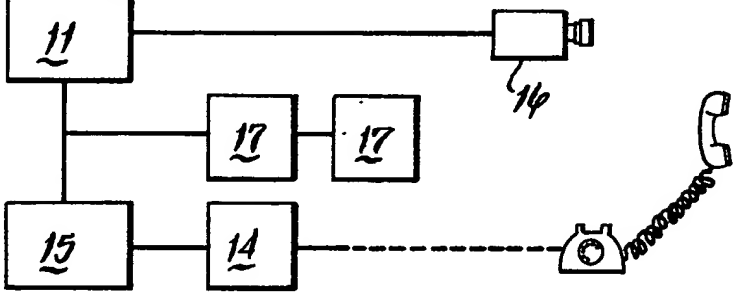


FIG.1



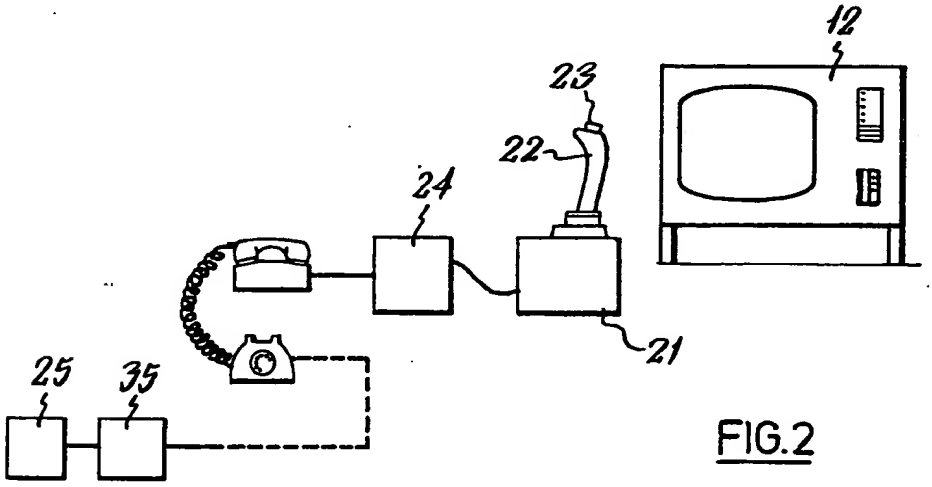


FIG.2

SPECIFICATION

Method and apparatus for playing a game

This invention relates to a method and apparatus for playing a game, and is particularly concerned with so-called "TV games" in which a microchip puts a game image on to a screen and a player has control over elements of such image. Such games include the popular "Space Invaders" and "Asteroids", in which alien space ships or asteroids are made to threaten the player's 'gunship' and by operating a joystick and/or push button control arrangement the player can attempt to avert such impending disaster, scoring points the while and prolonging the game for so long as he escapes annihilation.

Free-standing machines for playing such games are legion in amusement arcades, public houses and like places. Such machines often retain a record of the highest scores attained on them and can display these scores against the players' initials, should players be so minded. This introduces an element of competition amongst players as well as between player and machine. Other machines run games — such as football or squash — for two players to compete against each other.

The microchip and associated joystick and push button control arrangement can also be purchased in a form suitable for plugging into a domestic TV set so that games can be played at home, and provision can be made, as by supplying game programs on cassettes, for a number of different games to be played on the same equipment.

The present invention extends to entertainment and competitive potential of such TV games.

The invention provides a method for playing a TV game in which the play of the game is broadcast and a player with a receiver remotely controls the play by telephoned commands, automatically converted to control signals.

The commands could be voice commands converted to control signals by a speech recognition arrangement. Only a few different command words would be required, for example, "STOP", "RIGHT", "LEFT", "ROTATE" and "SHOOT" might be adequate for most games, and these can be easily distinguished and automatically converted to control signals, to take the place of the usual joystick and push-button generated signals, by a small computer.

The advantage of using voice commands, of course, is that no special equipment is required by the player. A disadvantage is that only one command can be given at a time. A simple tone generator could be used, provided, of course, adequate arrangements were made at the broadcasting station, if more than one command is to be given at once. Standard tone generators could be made available to those members of the viewing public wishing to participate, but it would also be possible to set up the station's computer to adapt to the custom built tone generators. Before the game takes place, the computer could be "instructed" that, for example, middle C means "Right" and so on, so that it is even conceivable that a piano or electric organ could be used as the tone generator.

A multi-channel arrangement would enable games to be played in which one player competed against another.

Broadcast games played according to the invention could be incorporated into scheduled television programmes, and perhaps regional and national championships held. Those wishing to practise for competitive participation could incorporate a speech recognition arrangement — such as might be based on a microcomputer unless, of course, a tone generator could be used in conjunction with a domestic TV game, or the joystick and push button controls thereof.

Embodiments of apparatus and methods for playing TV games in accordance with the invention will now be described with referene to the accompanying drawings, in which:—

Figure 1 is a diagrammatic illustration of one arrangement, and

Figure 2 is a diagrammatic illustration of another arrangement.

The arrangements illustrated in Figures 1 and 2 are for playing TV games in which the play of the game is broadcast from a television studio via a transmitter 11 and a player with a television receiver 12 receiving the broadcast remotely controls the play by commands through a telephone which is connected through the usual telephone system (or otherwise) with the studio, the commands being automatically converted to control signals.

In the arrangement shown in Figure 1, the commands are to be given in the form of voice commands, such as STOP, RIGHT, LEFT, SHOOT and so on. A voice decoder 14 in the studio converts these commands into signals which can control the TV game microchip 15 exactly as if a standard joystick and push button control arrangement had given them.

The studio will be equipped with the usual cameras 16, monitors 17 and so on so that the playing of the game can be built into a programme, which may have a compere, studio audience, guests and all the usual paraphernalia of television production.

Those wishing to participate in the play may apply to the studio beforehand, either by writing or telephoning, and can, before the programme goes on the air, establish a rapport with the voice decoder so that unusual accents do not lead to erroneous responses. For the play itself, the studio can call the player's number in the usual way and check the connection is satisfactory before proceeding.

For games in which the player completes against the machine, a score will result which can be matched against the scores of other players, towards setting up a championship competition. In games where one player competes against another, both players can be connected by telephone, or one can actually be in the studio.

The arrangement shown in Figure 2 is generally similar to that shown in Figure 1 except that a

standard TV game control consol 21, having joystick 22 and push button 13 is connected to a tone generator 24 that generates a set of tones that are determined by the control actions at the consol 21. These tones are transmitted telephonically to the studio where they are converted by a computer 35 — which could be generally similar to the voice decoder 25, but may be less sophisticated — into control signals for the TV game micro 25.

Although the connection of the remote player to the studio has been said to be by telephone, and, the public telephone system is an obvious expendient here, it is to be understood that the term is used in its broadest sense and can include radio telephone, fixed landline (eg. from one studio to another) or even communication satellites, so that if it should be desired, even international competitions and championships could be held.

CLAIMS

1. A method for playing a TV game in which the play of the game is broadcast and a player with a receiver remotely controls the play by telephoned commands automatically converted to control signals.

2. A method according to claim 1, in which the commands are voice commands converted to control signals by a speech recognition arrangement.

3. A method according to claim 1 or claim 2, in which two or more players control the play on separate telephone lines.

4. A method substantially as hereinbefore described with reference to the drawings.

5. Apparatus for playing a TV game in which the play of the game is broadcast and a player with a receiver remotely controls the play by telephone commands, comprising automatic conversion means converting said commands to control signals for the game.

6. Apparatus according to claim 5, said commands being voice commands and said automatic conversion means comprising a speech recognition arrangement.

7. Apparatus according to claim 4 or claim 5, said automatic conversion means being multi-channel so that two or more plays can control the play on separate telephone lines.

8. Apparatus substantially as hereinbefore described with reference to the drawing.

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